

REMARKS

Claims 1-6 are pending. By this amendment, claims 1, 3, 4, 5 and 6 are amended. Reconsideration in view of the above amendment and the following remarks is respectfully requested.

Entry of this Amendment is proper under 37 C.F.R. §1.116 since the Amendment: a) places the application in condition for allowance for the reasons discussed herein; b) does not raise any new issues requiring further search and/or consideration since the Amendment amplifies issues previously discussed throughout prosecution; c) does not present any additional claims without canceling a corresponding number of finally rejected claims; and d) places the application in better form for appeal, should an appeal be necessary. Entry of the Amendment is thus respectfully requested.

The Office Action rejects claims 1-6 under 35 U.S.C. §102(b) as anticipated by Toshihiko. This rejection is respectfully traversed.

Claim 1 recites, *inter alia*, a substrate holder provided within an exposure chamber and for holding a substrate on which surface a resist film is formed... and a gas collection means provided on said exposure chamber by directly connecting thereto, and for collecting an outgassing released from said resist film when irradiated with said electron beam.

Claim 3 recites, *inter alia*, a substrate holder provided within an exposure chamber, and for holding a substrate on which surface a resist film is formed... and a gas analysis means provided on said exposure chamber by directly connecting thereto, and for analyzing a constituent of an outgassing released from said resist film when irradiated with said electron beam.

Accordingly, Applicants respectfully submit that the outgassing released from the resist from when irradiated with the electron beam can be collected or analyzed during exposure. Thus, in amended claims 1 and 3, the gas collection means or the gas analysis means, respectively, is provided on the exposure chamber by directly connecting thereto.

In contrast, as illustrated in Fig. 4 or Toshihiko the means for collecting or analyzing the outgassing (outgassing measuring apparatus 10a) is provided in the baking stage (10d) of the baking chamber (10).

Furthermore, and with reference to amended claim 1 and 3, the outgassing released from the resist film is collected or analyzed during the irradiation of the resist film with the electron beam. However, in Toshihiko, the generated outgassing is collected or analyzed in the baking step after the exposure.

Accordingly, Applicants respectfully submit that Toshihiko fails to teach, suggest or disclose each and every feature as recited in claims 1 and 3. Accordingly, Toshihiko fails to anticipate claims 3. Furthermore, Applicants respectfully submit that Toshihiko fails to render obvious the features recited in claims 1 and 3.

Claim 4 recites, *inter alia*, holding within an exposure chamber, a substrate on which surface a resist film is formed, irradiating said resist film with an electron beam and collecting an outgassing released from said resist film when irradiating with said electron beam.

Claim 5 recites, *inter alia*, holding, within an exposure chamber, a substrate on which surface a resist film is formed, irradiating said resist film with an electron beam, collecting an outgassing released from said resist film when irradiated with said electron beam and analyzing a constituent of said collected outgassing.

Claim 6 recites, *inter alia*, holding, within an exposure chamber, a substrate on which surface a resist film is formed, irradiating said resist film with an electron beam, and analyzing a constituent of an outgassing released from the resist film when irradiated with said electron beam.

Accordingly, Applicants respectfully submit that in amended claims 4-6, the outgassing released from the resist film is collected or analyzed during a partial or fully exposure mode in which the resist film is irradiated with the electron beam. However, in contrast, in Toshihiko the outgassing, which is generated during the heat treatment of the resist film (wafer), is collected or analyzed after a writing mode in which the pattern is formed (a method or sequentially) forming pattern by using electron beam on the resist film).

During the partial or fully exposure mode in which the resist film is irradiated with the electron beam, if the energy of the electron beam is being absorbed by the outgassing generated from the resist film, the energy of the electron beam will vary in different parts of the resist film. However, with relation to claims 4-6, since the outgassing generated from the

resist film is collected or analyzed, the energy of the electron beam will be the same in every part of the resist film.

In contrast, according to Toshihiko, the pattern exposure is performed in the writing mode (a method of sequentially forming a pattern by using electron beam on the resist film) and thereafter, the outgassing generated during the heat treatment of the pattern exposed resist film is collected or analyzed.

Thus, Applicants respectfully submit that the outgassing collected or analyzed in Toshihiko is entirely different that the features recited in claims 4-6.

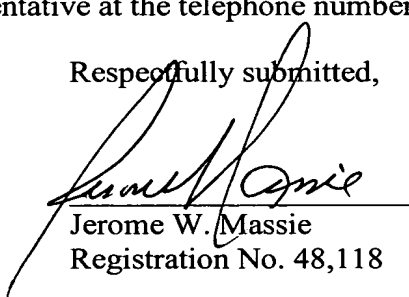
Accordingly, Applicants respectfully submit that claims 4-6 are not anticipated nor rendered obvious by the teaching of Toshihiko.

Therefore, Applicants respectfully request withdrawal of the rejection of claims 1-6 under 35 U.S.C. § 102(b).

Applicants respectfully submit the application is in condition for allowance. Favorable reconsideration and prompt allowance are respectfully requested.

Should the Examiner believe anything further is desirable in order to place the application in even better condition for allowance, the Examiner is encouraged to contact Applicants' undersigned representative at the telephone number listed below.

Respectfully submitted,



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